



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/797,825 | 03/10/2004 | LaShawn McGhee | I4909US02 | 7494 |
| 23446 | 7590 | 09/27/2006 | EXAMINER | |
| MCANDREWS HELD & MALLOY, LTD | | | | IQBAL, NADEEM |
| 500 WEST MADISON STREET | | | | |
| SUITE 3400 | | | | |
| CHICAGO, IL 60661 | | | | 2114 |
| ART UNIT | | | | |
| PAPER NUMBER | | | | |

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/797,825 | MCGHEE ET AL. | |
| | Examiner Nadeem Iqbal | Art Unit 2114 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,2,11-14 and 21 is/are rejected.

7) Claim(s) 3-10 and 15-20 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date Aug 27, 2004.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 & 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Erstad (U.S. Patent number 7058849).

3. Erstad teaches (col. 2, lines 2-4) a device and method for maintaining in a computer system a consistent checkpoint state in the computer system's main memory. He also teaches (col. 2, lines 54-56) a memory system comprising a primary memory element and one or more non-volatile memory elements. He thus teaches limitations pertain to electronic device having firmware and software stored in a non-volatile memory and comprising a fault-tolerant update agent. With reference to fault-tolerant agent capable of updating one of the firmware and software and is capable of determining at least one last updated memory block in a previous

update process during recovery. He teaches (col. 2, lines 54-56) one or more non-volatile memory elements which can be used to checkpoint data and a selector which can be used to restore the checkpointed data and a processor configured to selectively retrieve previously checkpointed state data from the memory system.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erstad (U.S. Patent number 7058849) as applied to claim1 above, and further in view of Santeler et al (U.S. Patent number 6223301).

7. As per claim 2, Erstad does not explicitly discloses applying an exclusive or transformation to contents of a first memory block and a second memory blocks. Santeler

teaches (col. 2, lines 33-36) to use the second data to restore the first data that includes exclusive ORing the second data. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the method of Santeler to apply an exclusive or transformation to contents of a first memory block and a second memory blocks. This is because both inventions are in the same environment of fault tolerant memory and such an inclusion provide a desirable advantage by preventing system crashes (col. 2, lines 24-26).

8. As per claim 11, Erstad teaches (col. 2, lines 44-46) that his invention provides transparent fault recovery with minimum interaction with the operating system, quick recovery time, and minimum process throughput degradation. It would have been obvious to a person of ordinary skill in the art to utilize the invention of Erstad in mobile electronic devices including mobile handsets, PDAs, pagers as claimed due to the advantages stated above.

9. As per claim 12, Erstad substantially teaches the claimed invention as disclosed related to claim 1 above. He does not explicitly discloses XOR contents of the second memory block into RAM. Santeler teaches (col. 2, lines 33-36) to use the second data to restore the first data that includes exclusive ORing the second data. It would have been obvious to a person of ordinary skill in the art to include the method of Santeler to apply an exclusive or transformation to contents of a first memory block and a second memory blocks. This is because both inventions are in the same environment of fault tolerant memory and such an inclusion provide a desirable advantage by preventing system crashes (col. 2, lines 24-26).

10. As per claims 13 & 21, Erstad teaches (col. 2, lines 44-46) that his invention provides transparent fault recovery with minimum interaction with the operating system, quick recovery time, and minimum process throughput degradation. It would have been obvious to a person of

ordinary skill in the art to utilize the invention of Erstad in mobile electronic devices including mobile handsets, PDAs, pagers as claimed due to the advantages stated above.

Allowable Subject Matter

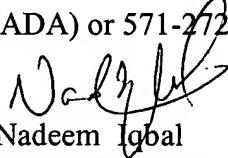
11. Claims 3-10, 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadeem Iqbal whose telephone number is (571)-272-3659. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)-272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nadeem Iqbal
Primary Examiner
Art Unit 2114

NI